

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF NORTH CAROLINA  
STATESVILLE DIVISION  
CIVIL ACTION No.: 5:11CV17-RLV**

<b>Shurtape Technologies, LLC,</b>	)	
<b>ShurTech Brands, LLC</b>	)	
<b>Plaintiff,</b>	)	
	)	
<b>vs.</b>	)	<b>Memorandum and Order</b>
	)	<b>Construing Claims</b>
<b>3M Company,</b>	)	
<b>Defendant.</b>	)	
_____	)	

**THIS MATTER** is before the Court upon the parties' respective filings concerning claim construction of the subject patent, U.S. Patent No. 6,828,008 ('008 Patent).<sup>1</sup> (Documents ##52-55, 57)

**I. Background**

Plaintiffs Shurtape Technologies, LLC, and Shurtech Brands, LLC (collectively "Shurtape"), assert that Defendant 3M Company ("3M") is infringing upon its registered patent, namely, U.S. Patent No.: 6,828,008 (the '008 Patent). Plaintiffs' product is FROGTAPE® painter's tape with PAINTBLOCK® and Defendant's alleged infringing product is a painter's tape with EDGE-BLOCK.

Plaintiffs commenced this action with the filing of the Complaint on February 22, 2011, in this Court. (Document #1) In the Complaint, Plaintiffs allege that Defendant 3M has injured Plaintiffs in the following ways: 1) Patent infringement in violation of 35 U.S.C. § 271 (First Cause of Action); 2) Trademark infringement in violation of 15 U.S.C. §1114 (Second and Third Causes of Action); 3) False designation of origin in violation of 15 U.S.C. § 1125(a) (Fourth and

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<sup>1</sup> See Patent Claim Construction Scheduling Orders (Documents ##27, 51) and WDNC Local Patent Rules.

Fifth Causes of Action); and 4) Unfair and deceptive trade practices in violation of N.C. GEN. STAT. 75-1.1 (Sixth Cause of Action). Plaintiffs seek legal and equitable relief.

A Markman hearing was held on April 4, 2012. Both sides were provided an opportunity to present their legal arguments with respect to claim construction. Accordingly, the construction of the relevant '008 Patent claims is ready for exposition.

### **III. Principles of Claim Construction**

Claim construction is a matter of law, to be decided by the Court. Markman v. Westview Instruments, Inc., 517 U.S. 370, 387-88 (1996). "The purpose of a Markman hearing is to ascertain the meaning of a patent's claims so that it is clear precisely what has been patented and, by consequence, the protections the patent therefore affords the patent holder." Spiroflow Syss., Inc. v. Flexicon Corp., WDNC No. 3:02CV70 (Keesler, J.) (*quoting* Ohio Willow Wood Co. v. Daw Indus., Inc., No. 2:04-CV-1222, 2006 WL 462364 at \*2 (S.D.Ohio, Feb. 22, 2006)); *see also* Bell Atl. Network Servs, Inc. v. Covad Commc'ns Group, Inc., 262 F.3d 1258, 1267 (Fed. Cir. 2001) ("The determination of infringement is a two-step process. First, the court construes the claims to correctly determine the scope of the claims. Second, it compares the properly construed claims to the accused device.")

"It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, *i.e.*, the patent itself, including the claims, the specification and, if in evidence, the prosecution history. Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language." Vitronics Corp. v. Conception, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996) (*citation omitted*). The Court should give the disputed claim terms "their ordinary and accustomed meaning as understood by one of ordinary skill in the art." Bell Atl., 262 F.3d at 1267. A person of ordinary skill in the art is deemed to read the claim

terms not only in the context of the particular claims in which the disputed terms appear, but also in the context of the entire patent, including the specification and the prosecution history.<sup>2</sup> See Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (*en banc*).

The claims of the patent "themselves provide substantial guidance as to the meaning of particular claim terms." Id. at 1314. Specifically, the context in which a term is used within the claim, as well as the usage of that term in other claims of the patent, can be valuable in ascertaining the meaning of a particular claim term. Id. Of course, the claims of the patent cannot be viewed in a vacuum. The Court also "must look at the ordinary meaning in the context of the written description and the prosecution history." Medrad, Inc. v. MRI Devices Corp., 401 F.3d 1313, 1319 (Fed. Cir. 2005) (*quoting DeMarini Sports, Inc. v. Worth*, 239 F.3d 1314, 1324 (Fed. Cir. 2001)).

The specification of the patent can be highly instructive in construing the patent claims. As the Federal Circuit has noted, the specification "is always highly relevant to the claim construction analysis." Vitronics, 90 F.3d at 1582. In fact, the specification is usually dispositive, as "it is the single best guide to the meaning of a disputed term." Id.; Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452 (Fed. Cir. 1985) ("The specification is ... the

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<sup>2</sup> "A person of ordinary skill in the art relevant to the '008 [P]atent [might] have a college degree in a physical or chemical science or in engineering and one to two years of industrial experience in paper and coating technology or paint technology." (Pawlak 2/20/12 Decl., ¶7) The parties' respective experts, who used to work together at N.C. State, both appear to be persons of ordinary skill in the relevant art. Plaintiffs' expert, **Dr. Bruce M. Novak**, has worked in the area of polymer chemistry for 28-plus years (including research / study of absorbent polymers and polymers in solutions). Novak is the Dean of the School of Natural Sciences and Mathematics at the University of Dallas, Texas, and an Adjunct Professor in the Chemistry Department at N.C. State. Defendant's expert, **Dr. Joel J. Pawlak**, has a B.S. in Paper Science and Engineering as well as a Ph.D. in Environmental Resource Engineering with a focus in Paper Science and Engineering, which required Pawlak to study the structure and the mechanical properties of paper, including coating technology. Pawlak is an Associate Professor at N.C. State. One of his current areas of research is the study of absorbent materials made from natural materials.

primary basis for construing the claims."). As such, the Federal Circuit has stated that it is "entirely appropriate for a court, when conducting claim construction, to rely heavily on the written description for guidance as to the meaning of the claims." Phillips, 415 F.3d at 1317. In some cases, the inventor may provide within the specification a special definition of a claim term which differs from the term's usual meaning. "In such cases, the inventor's lexicography governs." Id. at 1316; *see also* Thorner v. Sony Computer Entm't Am. LLC, 669 F.3d 1362, 1365-66 (Fed. Cir. 2012) (to act as lexicographer, inventor's written description must "clearly express an intent" to redefine the term) (*internal citations omitted*). The inventor also may disclaim or disavow claim scope within the specification. Where "the inventor has dictated the correct claim scope, ... the inventor's intention, as expressed in the specification, is regarded as dispositive." Id.; Thorner, 669 F.3d at 1366 (disavowal and disclaimer must also be "clear and unmistakable" and is not found where a particular embodiment is merely criticized or where a particular structure makes it difficult to obtain certain benefits of the claimed invention) (*internal citations omitted*).

In addition to consulting the specification, the Court also may examine the patent's prosecution history in construing the terms of the claims. Markman v. Westview Instruments, Inc., 52 F.3d 967, 980 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). "Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent." Phillips, 415 F.3d at 1317. The prosecution history also may be helpful in determining whether the inventor disclaimed any particular interpretation during the prosecution of the patent. *See* Chimie v. PPG Indus., Inc., 402 F.3d 1371, 1384 (Fed. Cir. 2005). While it can be helpful in some respects, the prosecution history "often lacks the clarity of the specification and thus is less useful for claim construction purposes." Phillips, 415

F.3d at 1317.

In addition to examining the intrinsic evidence, the Court is also authorized to consider certain extrinsic evidence, "including expert and inventor testimony, dictionaries, and learned treatises." Markman, 52 F.3d at 980. Specifically with respect to expert testimony, the Federal Circuit has noted that such testimony "can be useful to a court for a variety of purposes, such as to provide background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." Phillips, 415 F.3d at 1318. The Federal Circuit has cautioned, however, that "conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court." Id. The Court must disregard any expert testimony "that is clearly at odds with ... the written record of the patent." Key Pharms. v. Hercon Labs. Corp., 161 F.3d 709, 716 (Fed. Cir. 1998).

While extrinsic evidence may be useful in "shed[ding] useful light on the relevant art," it is "less significant than the intrinsic record in determining the 'legally operative meaning of disputed claim language.'" C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 862 (Fed. Cir. 2004) (*quoting in part* Vanderlande Indus. Nederland BV v. Int'l Trade Comm'n, 366 F.3d 1311, 1318 (Fed. Cir. 2004)). "In sum, extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." Phillips, 415 F.3d at 1319.

#### IV. Claim Construction

As an introductory matter, the field of the invention is adhesive tape for masking as the '008 Patent "relates to an improved adhesive tape having an edge coating." ('008 Patent, Field

of Invention). More specifically, the present invention relates to an edge coating for masking tape and other masking materials that improves the masking ability of those materials.” (‘008 Patent, Field of Invention). According to Shurtape, the ‘008 Solution is non-intuitive –

“The edge coating may be applied to one or both edges of the tape and comprises an absorbent material that acts to prevent or at least minimize the absorption of liquids into the tape substrate and the ingress of liquids between the adhesive layer and a surface to which the tape has been applied.”

(‘008 Patent at col. 4, lines 28-34 and Fig. 5). Shurtape claims the “bounds of this invention” are best described in the specification’s “DETAILED DESCRIPTION”:

The edge coating or edge layer 36 preferably has superabsorbent properties such that the edge coating can absorb many times its own weight in liquids brought into contact with the edge 40 of the tape 30. At the very least, the edge coating 36 will have a greater absorbency than the substrate 32 of the tape 30 and will tend to draw liquids from the substrate and will reduce or prevent the absorption of liquids into the substrate 32. The absorbency of the edge coating 36 also acts to overcome the capillary action that can draw liquids such as paint beneath the tape.

(April 4, 2012 Hr’g Tr., 9-10 / ‘008 Patent at col. 4, lines 35-45) Accordingly, there are two primary purposes for employing the absorbent edge coating or layer: 1) to draw liquids from the substrate and reduce or prevent the absorption of liquids into the substrate; and 2) to overcome the capillary action that can draw liquids such as paint beneath the tape. Id.

The prosecution history reveals that the patentee and the USPTO reached an agreement that the independent claims within the ‘008 Patent would be amended consistent with the below language:

“the absorbent is coated “substantially only” at the edge of the masking tape in order to define over the cited art, subject to review of the actual presented claim language.”

(Document #52-12 / PH, 40). The amendment directly affected Claims 1, 10, 20, 22, and 25.

(PH, 40-48) In other words, it is the absorbent edge coating that distinguishes the ‘008 Patent

from the prior art (plain old masking tape minus an absorbent edge coating). As a result, the construction of this phrase is deserving of careful and thoughtful analysis.

As a further point of clarification, the '008 Patent identifies the use of super-absorbent polymers as its "preferred embodiment" (*i.e.*, super-absorbent polymer is the preferred material). However, the '008 Patent also identifies other potentially useful materials and expressly states that the description of the preferred embodiment is "*illustrative only* of the principles of the invention."<sup>3</sup> ('008 Patent, col. 6, Lines 60-61) (*emphasis provided*). Likewise, the '008 Patent affirmatively states that "it is not desired to limit the invention to the exact construction and operation shown and described....[T]he details may be changed without departing from the invention, which is defined by the claims." ('008 Patent, Lines 60-68)

The principal claims to be construed by this Court may be grouped according to the desired function or purpose. As for Claims 3, 13, and 23, the patent's stated purpose is "to retard the curing," which the parties agree means "to slow or prevent forming of a solid film." With respect to Claims 10, 21, and 24, the purpose is "to substantially prevent" the movement of liquids.<sup>4</sup>

The Court undertakes claim construction recognizing the Federal Circuit's instruction:

"It is the claims that define the metes and bounds of the patentee's invention. Phillips, 415 F.3d at 1313. The patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless the patentee explicitly

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<sup>3</sup> Certain of 3M's arguments concerning proposed constructions are premised on the use of super-absorbent polymers, Shurtape's preferred embodiment. Nonetheless, at the Markman hearing, counsel for 3M represented that 3M does not seek to limit or restrict the construction or scope of the '008 Patent to its preferred embodiment. (April 4, 2012 Hr'g Tr., 40)

<sup>4</sup> The parties agree that the term "substantially" should be construed consistent with its ordinary meaning. (Document #49 / Exh. A at 1, 4)

redefines the term or disavows its full scope.”

Thorner v. Sony Computer Ent. Am. LLC, 669 F.3d 1362, 1367 (Fed. Cir. 2012 ).

**A. “Absorbent Edge Coating” / “Absorbent Edge Layer”  
(Claims 1, 3, 4, 10-13, 19, 21, 23, 24)**

Pursuant to the language of the ‘008 Patent and the ordinary and customary meaning of the terms therein, the Court construes “absorbent edge coating” and “absorbent edge layer” as follows:

**A coating [or layer] of a solid material applied to the edge of the tape that is able to take up liquid.**

The intrinsic record of the ‘008 Patent supports the adopted construction. The Court first considers whether “absorbent edge coating [or layer]” requires a solid characteristic. Within the “Background of the Invention” section of the ‘008 Patent, the patentee identifies one of its three objectives as follows:

“[I]t is an objective of the present invention to provide an edge coating that eliminates or at least minimizes the movement of paint or other liquids past a *boundary* defined by a masking edge of an adhesive tape or other masking product.”

(‘008 Patent, col 1, Background) (*emphasis provided*). The term “boundary” is used throughout the Summary of the Invention section as well to describe how the ‘008 Patent is to function.

(‘008 Patent, col. 2, lines 24, 33, 42 and col. 3, lines 4, 13-14, 38, 39) Claim 10 speaks of “an improved masking tape for defining a boundary.” (‘008 Patent at col. 7, line 32) More specifically, Claim 10 contemplates that the absorbent edge layer applied to the masking edge of



the substrate will prevent liquids from moving past the boundary.<sup>5</sup> ('008 Patent at col. 7, lines 40-46)

While it is clear that the '008 Patent calls for the formation of a boundary, the parties disagree as to whether the absorbent edge coating or layer *must* be a solid. Defendant 3M contends that a solid characteristic is required in order to create the kind of boundary the '008 Patent aspires to create between the liquid and the surface to which the tape is applied. The intrinsic record does not expressly describe the edge coating or layer as *necessarily* being in the form of a solid.<sup>6</sup> Nonetheless, the *Concise Science Dictionary* that Plaintiffs rely heavily on for their proposed construction contemplates that a liquid is absorbed or "taken up" by a solid.<sup>7</sup> In addition, Dr. Novak admits that a solid characteristic is at least implied by the patent. (Dr. Novak Dep. 246:13-19). For these reasons, it is appropriate to construe "absorbent edge coating / layer" as having a solid characteristic.

Next, the undersigned considers the requisite degree of specificity in construing the term "absorbent" for purposes of the phrase "absorbent edge coating [or layer]." Shurtape argues that the common understanding of absorbent means "to take up a liquid" and that this construction is consistent with the invention, which attracts (versus repels) liquids. (April 4, 2012 Hr'g Tr., 16-

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<sup>5</sup> The parties agree that "masking edge" should be construed as "an edge *capable of forming a boundary* between masked and unmasked surfaces." (Document #49-1 / Exh. A at 3, 12) (*emphasis added*).

<sup>6</sup> In the context of the preferred embodiment, the specification notes that "[s]uper-absorbent materials are *typically solid*, granular cross-linked polyacrylate polymers that rapidly absorb and retain large volumes of aqueous and other types of solutions and liquids." ('008 Patent, Col. 4, Lines 49-52) (*emphasis added*).

<sup>7</sup> *Concise Science Dictionary*: "1. (in chemistry) The take up of a liquid gas by a solid or liquid, or the take up of a liquid *by a solid*. Absorption differs from adsorption in that the absorbed substance permeates the bulk of the absorbing substance." (*emphasis added*)

17) 3M proposes a much more detailed definition based on the American Society for Testing and Materials (“ASTM”) Standards’ definition.<sup>8</sup> The competing proposals raise the question whether “absorbent” should be distinguished from “adsorbent” for purposes of construing “absorbent edge coating [or layer].” 3M posits that the uniqueness of the ‘008 Patent is the application itself (*i.e.*, how the edge coating or layer is able to absorb the liquid) as opposed to the absorbent quality.<sup>9</sup> (April 4, 2012 Hr’g Tr., 39) It appears that this application argument drives 3M’s insistence that construction of the ‘008 Patent must explain the difference between absorbent and adsorbent. This Court finds that drawing a distinction between absorbent / adsorbent is not necessary to claim construction in this context. According to Shurtape, adsorbency (a surface phenomena) will always precede absorbency (uses structure) and, therefore, it is nearly impossible to draw any meaningful distinction. 3M doesn’t seriously dispute this. The parties both concede that to be “absorbent” as opposed to merely “adsorbent,” the absorbing material must “take up” the liquid (*i.e.*, the liquid must permeate its bulk). (Pl.’s Opening Brf., 10) Thus, the Court’s construction adequately sets absorption apart from

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<sup>8</sup> ASTM (now known as ASTM International) standards “are developed in accordance with the guiding principles of the World Trade Organization for the development of international standards: coherence, consensus, development dimension, effectiveness, impartiality, openness, relevance and transparency.” (Pawlak Decl., 19 / Exh. 4) 3M’s proposed definition, ASTM F726-99, is derived from an ASTM testing protocol that deals with oil spills:

A coating or layer of a solid material on the edge of a substrate or tape that has the ability to pick up and retain a liquid distributed throughout its molecular structure causing the solid to swell (50% or more); the material is at least 70% insoluble in excess fluid.)

Although the parties dedicate a lot of time debating the applicability of the ASTM standard to the ‘008 Patent, the invention is described in more general and comparative terms, which is the prerogative of the patentee. *See e.g.*, Thorner, 669 F.3d at 1367.

<sup>9</sup> 3M contends that masking tape and absorbents generally have been around a long time. 3M adds that it invented masking tape.

adsorption. More importantly, the term adsorbent is not referenced within any of the claims, the specification, or the prosecution history. It is most persuasive that the inventor-patentee did not have to address this purported distinction at any point during the prosecution of the patent in order to distinguish the '008 Patent from the prior art.

The Court likewise declines the importation of numerical limitations as to the requisite degree of absorbency in favor of a broader construction. As a general rule, “when a claim term is expressed in general descriptive words, [the court] will not ordinarily limit the term to a numerical range that may appear in the written description or in other claims.” Conoco, Inc. v. Energy & Env'tl. Int'l, L.C., 460 F.3d 1349, 1358 (Fed. Cir.2006) (*internal citations and quotation marks omitted*). 3M suggests that the ASTM Standard it cites provides the more precise definition for “absorbent edge coating [or layer]” in that it reflects a meaningful *minimum degree of absorbency*. 3M relies on Lee's Aquarium & Pet Products v. Python Products, Inc., wherein the circuit was asked to define “gravel” for purposes of an aquarium device used to churn gravel and discharge sediment through an elongated hose. The court had to determine whether the term “gravel” included “sand.” The court construed the term “gravel” consistent with an ASTM standard definition *and rejected a broader construction proffered by the Defendant*.<sup>10</sup> See Lee's Aquarium & Pet Prods. v. Python Prods., Inc., 152 F.3d 945, 1998 WL 129903 (Fed. Cir. 1998) (*unpublished*). The Federal Circuit explained that the ASTM definition, which distinguished the two materials based upon minimum particle size, supplied “the only meaningful distinction between the words “gravel” and “sand.” Lee's Aquarium, 152

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<sup>10</sup> The competing construction of “gravel” was “any material small enough to enter and heavy enough to fall from the gravel tube during operation.” Lee's Aquarium, 152 F.3d 945, 1998 WL 129903, \*3.

F.3d 945, 1998 WL 129903, \*3 (“gravel” is a material “having a minimum particle size of 4.75 mm.”) In Lee’s Aquarium, particle size was germane to claim construction because, for purposes of the patent, “gravel” had to be construed so as to be functional within the context of the patent (*i.e.*, allow the device to churn gravel). In addition, other dictionary definitions supported the ASTM definition. The Federal Circuit affirmed the district court’s construction of “gravel” finding its construction was based on the ordinary and customary meaning to one skilled in the art. The absorbent edge coating [or layer] in this case does not require a specific numerical limitation in order to provide for function.

Here, the ‘008 Patent can be distinguished from cases where a numerical range is included within the intrinsic record to limit the claims. In Amazin’ Raisins Int’l, Inc. v. Ocean Spray Cranberries, Inc., the term “dried fruit” was construed to mean “fruit from which natural moisture has been removed which has approximately 10 to 18% moisture remaining.” *See e.g.*, Amazin’ Raisins Int’l, Inc. v. Ocean Spray Cranberries, Inc., 306 Fed. Appx. 553, 556, 2008 WL 5474244, \*3 (C.A. Fed. 2008) (*unpublished*). Although the percentages were not expressly mentioned within the claim language, it was critical to the court’s decision that the Detailed Description section of the Specification explained that the invention was directed towards use of: “Any dried fruit which contains between about 10% to 18% moisture....”<sup>11</sup> Amazin’ Raisins, 306 Fed. Appx. 553, 557, 2008 WL 5474244, \*4. Here, there is no numerical limitation found within the intrinsic record. According to Shurtape’s expert, “[a]bsorbency ... is a continuum: some materials can take up a large volume of liquid, others less, and some little or none.” (Pl.’s Opening Brf., 8 / Novak Decl. ¶11) In terms of performance, the floor of the ‘008 Patent is

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<sup>11</sup> The Amazin’ Raisins panel also found it significant that the amount of moisture remaining in the dried fruit was discussed before any preferred embodiments or specific examples were detailed. Id.

simply that “the edge coating 36 has a greater absorbency than the substrate of the tape.” (‘008 Patent, col. 4, lines 38-40) Because there is no numerical limitation as to the degree of absorbency specified within the ‘008 Patent, to import such a limitation would be improper.

Finally, the Court declines to construe “absorbent edge coating [or layer]” to require a swelling mechanism. If the ‘008 Patent were limited to its preferred embodiment, swelling as the means for absorbing may, in fact, be a proper construction. (‘008 Patent at col. 4, lines 45-65) (“liquids absorbed by a super-absorbent material are entirely encapsulated”; via osmosis, a super-absorbent is “able to absorb and retain many times its own weight”). 3M also improperly relies on Figure 8 (which illustrates the preferred embodiment and describes how the absorbent edge coating expands to absorb liquids) to import a swelling mechanism as a requirement of absorption. *See Playtex Prods., Inc. v. Proctor & Gamble Co.*, 400 F.3d 901, 907-08 (district court relied on drawings and figures to improperly limit claim to a preferred embodiment). According to 3M, a person of ordinary skill in the art would understand that swelling is “a recognized property of absorbent materials.” (Pawlak Decl., ¶11) However, 3M’s Dr. Pawlak refers the Court to a section of the Specification that describes “persistent problems” with the prior art as opposed to the advantages of the ‘008 Patent and its teaching.<sup>12</sup> (Pawlak Decl., ¶¶11, 12) (*citing* ‘008 Patent at col. 1, lines 20-28). The ‘008 Patent is not so limited.

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<sup>12</sup> In context, the lines cited by 3M explain that masking tapes are “typically only partially successful in defining a clean masking edge or boundary between masked and unmasked surfaces.” (‘008 Patent at col. 1, lines 17-20) The patent goes on to explain that the problem occurs for two reasons: 1) “[W]hen an unmasked surface is painted, it is common for paint to work its way into gaps between the adhesive layer of the tape and the surface to which the tape is applied.”; and 2) “[T]he paper substrate has a tendency to absorb or wick moisture from the paint through the unprotected edge of the tape substrate. This absorption causes swelling in the tape that degrades the ability of the tape to form a tight seal with the surface to which it is applied.” (‘008 Patent at col. 1, lines 21-28) Thus, according to the “Background of the Invention,” swelling that occurs in a tape *hinders* rather than helps the formation of a tight seal. *Id.*

**B. “Liquids”**  
**(Claims 1, 10, 21, 24)**

The Court construes the term “liquids” as follows:

**Oil paint, latex paint, milk paint, whitewash paint, shellac, varnish, lacquer, thinners, cleaners, strippers, water, solvents, and any other substances, liquid or merely viscous, whose use may require the use of masking tape or other masking products.**

The Court’s construction recognizes the relevant field, namely, an edge coating for masking tape. Support for this construction is found within the ‘008 Patent specification, which provides:

Liquids that may be absorbed by the edge coating *may include, but are not limited to*, paint (oil, latex, milk, whitewash etc.), shellac, varnish, lacquer, thinners, cleaners, strippers, water, and solvents of many types. The term “liquids” as used herein *is to be construed broadly* to include all of the aforementioned substances as well as any other substances, liquid or merely viscous, whose use may require the use of masking tape or other masking products.

(‘008 Patent at col. 5, lines 5-20) The specification language identifies a non-exhaustive list of specific liquids such as different types of paint, shellac, etc., for which the invention is designed to be used. (*Id.*, lines 5-7) (*i.e.*, “may include, but are not limited to ....”) However, the specification also includes a catch-all reference to “any other substances, liquid or merely viscous, whose use may require the use of masking tape or other masking products.”<sup>13</sup> (*Id.*, lines 7-11)

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<sup>13</sup> Shurtape argues that the proposed 3M construction is nonsensical because it requires the “absorbent edge coating [or layer]” to absorb *all* liquids. (April 4, 2012 Hr’g Tr., 26-28) However, the construction must be consistent with the ordinary and customary meaning *as understood by one with skill in the art*. In proper context, the catch-all language makes clear that the invention is for liquids whose use may require the use of masking tape or other masking products.

The Court's construction relies entirely on the definition in the specification, which is superior to any other proposed construction. "The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication." *See e.g., Jack Guttman, Inc. v. Kopykake Enters, Inc.*, 302 F.3d 1352, 1360 (Fed. Cir.2002) (*quoting Vitronics Corp.*, 90 F.3d at 1582) (district court erred in its construction where court overlooked explicit definitions provided by the patentee in the specification and prosecution history).

This construction recognizes the specific examples of the types of liquids the '008 tape is most likely to be used in conjunction with and also accommodates the flexibility and broad range of uses contemplated by Shurtape. Consistent with the claims of the patent, liquids (plural) is distinguished from any given liquid (single) or any specific group or subset of liquids *not used in conjunction with masking*. For instance, a comparison of this construction with the smaller subset of liquids described in dependent Claim 11 ("liquids chosen from the group consisting of oil based paint, latex paint, milk paint, whitewash, stains, glazes, dyes, cleaning compounds, strippers, water and solvents") illustrates the expanse of Patent '008's potential use.

**C. "Absorbs and Retains"**  
**(Claims 3, 13, 23)**

The Court construes the phrase "**absorbs and retains**" as:

**The take up and holding of liquids within a structure.**

In the context of the '008 Patent, the phrase "absorbs and retains" indicates a dual function (or the capacity to do more than absorb).<sup>14</sup> "Absorbs and retains" is used in several dependent claims that aspire "to retard the curing of liquids." In the "Summary of the Invention"

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<sup>14</sup> The Court's construction of "absorbent edge coating [or layer]" does not weigh heavily in favor of either party's proposed construction of "absorbs and retains."

section of the specification, cited by Shurtape, the '008 Patent reads in part:

“[T]he absorbent edge layer applied to the at least one masking edge is able to **absorb and retain** liquids applied thereto in such a manner as to retard the curing of the liquid located at the boundary.”

(‘008 Patent, col. 2, lines 39-42) (*emphasis provided*). The parties agree that “to retard the curing” means “to slow or prevent forming of a solid film.” (Def.’s Exh. B at 6.)

In the context of Claim 3, the patentee claims:

The tape of claim 1 wherein the absorbent edge coating **absorbs and retains** liquids addressed to the at least one masking edge in such a manner as to retard the curing of the liquids adjacent the at least one masking edge and thereby facilitating the clean release of the tape from a surface to which the tape has been applied and from the liquid applied to the surface.

(‘008 Patent, col. 7, lines 14-20) (*emphasis provided*).<sup>15</sup> Similarly, in the discussion of Figure 5, which is cited by 3M and addresses a painting application using the preferred embodiment, the term “retain” is used as follows:

The super absorbent materials of the edge coating 36 **retain** the paint P away from the atmosphere such that the paint P within the edge coating 36 does not fully cure.

(‘008 Patent, col. 5, lines 39-41) (*emphasis added*).

The parties discuss several sources for ascertaining the ordinary and customary meaning of this phrase. One extrinsic source provides that the ordinary meaning of “retain” is “[t]o keep or hold in a particular place, condition, or position.” *The American Heritage Dictionary of the English Language*, 1539 (Third ed. 1992); see also [www.merriamwebster.com](http://www.merriamwebster.com), *Merriam-Webster Online Dictionary*, June 2012 (“retain” is “to hold secure or intact.”)

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<sup>15</sup> The usage of the phrase in Claim 3 is similar to, or exemplary of, the use within Claims 13 and 23.



In the context of the '008 Patent, if the absorbent edge coating "absorbs and retains," the liquid must be retained somewhere. Exactly how something is retained seems to be at the center of the parties' dispute. Shurtape provides little support for its proposed construction. However, Shurtape agrees that, under the Concise Science Dictionary definition, the words "take up a liquid" requires that the liquid permeate the bulk of the absorbing substance. (Pl.'s Opening Brf., 8) This concession softens Shurtape's opposition to 3M's proposed construction.<sup>16</sup> 3M's expert Dr. Pawlak, opines that a person of ordinary skill in the art would understand that a material that holds liquid on its surface by adsorption cannot "retard curing" in the fashion described in the '008 Patent. (Def.'s Exh. K / Pawlak Decl., ¶16) In light of the purported added feature – retains – with respect to these claims, the inclusion of "within its structure" in the construction is supported by the '008 Patent as a whole.

**D. "Greater Absorbency"**  
**(Claims 4, 12)**

The Court construes the phrase "greater absorbency" as:

**Capable of taking up more liquid per unit mass.**

Claim 4 is dependent on Claim 1 and Claim 12 is dependent on Claim 10. Claim 4 reads in its entirety:

"The tape of claim 1 wherein the absorbent edge layer has a *greater absorbency* than the substrate of the tape."

('008 Patent at col. 7, lines 21-22) (*emphasis added*). Claim 12 is identical except that it refers to the tape of claim 10 rather than claim 1. ('008 Patent at col. 7, lines 52-53)

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<sup>16</sup> Admittedly not a person with ordinary skill in the art, the undersigned fails to find any creditable distinction between a construction that acknowledges the liquid will permeate the bulk of the absorbing substance with a construction stating that the edge coating will take up and hold liquid within its structure.

As previously noted, the absorbent feature of the '008 Patent occurs at the edge of the tape. (Document #52-12 / PH, 40). 3M points out that the comparison being drawn in Claims 4 and 12 is between the absorbent edge coating and the substrate of the tape.<sup>17</sup> According to 3M, in order for the '008 Patent to accomplish what it claims, the edge coating must absorb a greater amount of (*more total*) liquid than the substrate of the tape.<sup>18</sup> (Def.'s Resp. Brf., 23-24) More specifically, 3M contends that the absorbent edge coating must absorb the liquid [paint] "that would otherwise be absorbed by the substrate of the tape 30 or pass between the tape 30 and the surface S." ('008 Patent at col. 5, lines 1, 27-31) However, 3M's alleged basis for its proposed construction does not find support in the language of the relevant claims. Instead, 3M points the Court to a description of Figure 5, which describes the preferred embodiment and its use in the context of a painting application.

In the context of Claims 4 and 12, it is the superior absorbency feature of the absorbent edge coating or layer that sets these claims apart from Claims 1 and 10, respectively – not the total amount absorbed. The parties agree that "greater absorbency" is a comparative term. Here, Shurtape properly compares "greater absorbency" of the "absorbent edge coating [or layer]" to the substrate of the tape or tape itself. For purposes of Claims 4 and 12, the absorbent edge coating serves "to draw liquids from the substrate" such that the edge coating "will reduce or

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<sup>17</sup> During oral argument, counsel for 3M attempted to break down the components of masking tape into three (3) parts: 1) a middle layer called the substrate comprised of paper, crepe, or other material that is "useful [in some way] to the surface in which it's applied"; 2) a top coating that's liquid proof; and 3) a bottom adhesive that "allows [the tape] to stick to the surface" and "provides [a] seal so that hopefully the [liquid] will not go through and underneath the tape ...." (April 4, 2012 Hr'g Tr., 37-38) In contrast, Shurtape appears to use the term "substrate" to refer to both the tape as a whole and the middle layer.

<sup>18</sup> 3M's proposed construction of "greater absorbency" is "capable of taking up more liquid within its structure." The "within its structure" limitation was found appropriate in construction of the phrase "absorbs and retains." (See Section "IV.C.")

prevent the absorption of liquids into the substrate.” (‘008 Patent at col. 4, lines 38-44) The degree of absorbency does not have to be as detailed or finite as manufacturing specifications. *See e.g., Playtex Prods., Inc. v. Proctor & Gamble Co.*, 400 F.3d 901, 908 (Fed. Cir. 2005 (rejecting expert’s opinion that “substantially flattened surfaces” means “flat within a geometric manufacturing tolerance.”) The Court is persuaded that Shurtape’s proposed construction is sufficient in that it makes clear that the relative absorbency of the two materials identifies Claims 4 and 12 rather than the ability to absorb more total liquid.<sup>19</sup>

**E. Comparative Terms  
(Claims 5, 9, 11-13)**

3M proposes language relevant to certain Claims that amounts to comparative terms or limitations.<sup>20</sup> The inclusion of 3M’s proposed comparative terms is unnecessary to claim construction. The Court is not persuaded by 3M’s justification that the present invention represents an “improved” adhesive tape having an edge coating as distinguished from the prior art tape with masking features. (‘008 Patent, Field of the Invention, 1:6-10) As far as improvement goes, the existence of an absorbent edge coating, absent any comparison, has already been deemed an improvement over the prior art.

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<sup>19</sup> Contrast the “greater absorbency” statement with the description of the edge coating or edge layer with superabsorbent properties. (‘008 Patent at col. 4, lines 35-44) Using a super-absorbent material, “the edge coating can absorb many times its own weight in liquids brought into contact with the edge of the tape.” (‘008 Patent at col. 4, lines 35-38)

<sup>20</sup> For example, 3M proposes that Claim 3 be construed such that the invention’s designated function is described / covered:

In conjunction with construing the claim language, 3M seeks to draw a comparison between the ‘008 invention and its ability to absorb and retain liquids with “a comparable tape lacking the edge coating [or layer] or absorbent material.” In addition to being an awkward read, the comparisons do not add anything to the reader’s understanding of the patentee’s claim.

Rather, the comparisons are more properly drawn in the infringement phase of the case. In Thorner v. Sony Computer Ent. Am. LLC, the Federal Circuit found that the district court improperly limited a term at the claim construction phase. Thorner v. Sony Computer Ent. Am. LLC, 669 F.3d 1362 (Fed. Cir. February 1, 2012 ). The district court construed the phrase “flexible pad” to mean “capable of being noticeably flexed with ease” for fear that the patentee’s proposed construction (“capable of being flexed”) was too broad. Thorner, 669 F.3d at 1365. The circuit court noted that “[n]either the claims nor the specification requires the “flexible pad” to be noticeably flexed with ease. The specification says only that the flexible pad must be a semi-rigid structure.” Thorner, 669 F.3d at 1369. Thorner teaches that:

“It is the claims that define the metes and bounds of the patentee’s invention. The patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless the patentee explicitly redefines the term or disavows its full scope.”

Thorner, 669 F.3d at 1367 (*citing Phillips*, 415 F.3d at 1313.) In so holding, the circuit court further explained that “[t]he task of determining the degree of flexibility, the degree of rigidity that amounts to ‘semi-rigid,’ is part of the infringement analysis, not part of claim construction.” Thorner, 669 F.3d at 1369.

Defendant 3M cites Playtex Prods., Inc. v. Procter & Gamble Co., for the following proposition - “The disputed claim term is clearly a comparative term. Comparison requires a reference point.” Playtex Prods., Inc. v. Procter & Gamble Co., 400 F.3d 901, 908 (Fed. Cir. 2005). In Playtex, the Federal Circuit found the district court’s construction of “substantially flattened surface” contrary to the phrase’s unambiguous meaning in view of the intrinsic record. Playtex, 400 F.3d at 909. Specifically, the Federal Circuit found that the district court erred in construing “substantially flattened surface” such that “substantially flattened” equates

“flattened” with “flat.” Playtex, 400 F.3d at 908. The Playtex panel explained:

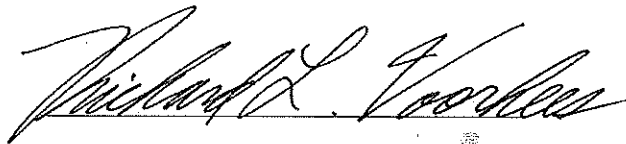
In the context of the claim, the term “flattened” requires a comparison between the diametrically opposed surfaces and something else. The only antecedent basis in the claim is the tubular barrel. Playtex, 400 F.3d at 908-09. Playtex, therefore, claimed something flatter than a tubular barrel, but not necessarily something flat.

Playtex, 400 F.3d at 908-09. While 3M accurately cites the point of law, the Playtex decision does not support 3M’s argument that comparisons are required within the construction of each of the various terms and phrases.

#### V. Order

**IT IS THEREFORE ORDERED** that the claims of the ‘008 Patent are construed in accordance with this Memorandum and Order. Accordingly, the parties may now engage in post-claim construction matters, subject to further instruction from the Magistrate Judge, as contemplated by the Local Patent Rules and the parties’ “Utility Patent Certificate of Initial Attorneys’ Conference.”

Signed: July 13, 2012



Richard L. Voorhees  
United States District Judge

